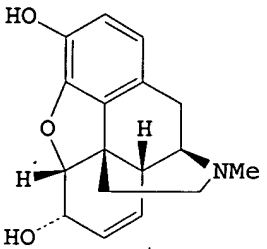
STN-Structure Search 4/17/07

10/501,353

=> d ibib abs hitstr 1-2

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:107 CAPLUS
DOCUMENT NUMBER: 98:107
TITLE: Analysis of morphine in serum by high performance liquid chromatography with amperometric detection
AUTHOR(S): Vandenberghe, H.; MacLeod, S. M.; Chinyanga, H.; Soldin, S. J.
CORPORATE SOURCE: Dep. Clin. Biochem., Univ. Toronto, Toronto, ON, Can.
SOURCE: Therapeutic Drug Monitoring (1982), 4(3), 307-14
CODEN: TDMODV; ISSN: 0163-4356
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

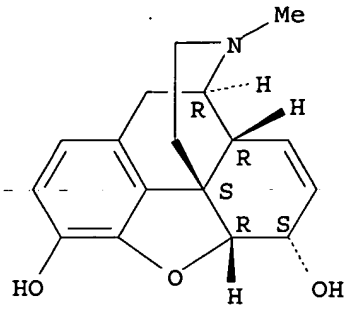


I

AB A rapid and sensitive micromethod for morphine (I) [57-27-2] determination in serum or plasma using high performance liquid chromatog. with electrochem. detection is described. The separation of morphine and the internal standard, 5-hydroxyquinoline, from interfering compds. present in plasma was achieved by paired-ion reverse phase chromatog. using a 70 mM phosphate buffer at pH 5.80. The flow rate was 1 mL/min. Oxidation of morphine and the internal standard was obtained at a potential of 0.60 V. Only 100 μL of serum or plasma was required. Anal. recoveries for morphine and 5-hydroxyquinoline were determined as 78% and 63%, resp. The between-day precision of serum samples containing 250, 100, and 25 μg/L of morphine was 6.5%, 5.2%, and 9.5% resp. The detection limit was 1 μg/L at a sensitivity of 5 nA/V. Children between the ages of 0 and 5 yr received a bolus of morphine of 11 μg/kg, followed by an infusion of 2 μg/kg/min during surgery. The time-concentration curves demonstrated an initial rapid fall in morphine concentration with subsequent attainment of a steady state concentration of approx. 90 μg/L after 1 h. This concentration would be expected to produce optimal analgesia in conscious patients.

IT 57-27-2, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in blood by high-performance liquid chromatog., pharmacokinetics in children in relation to)
RN 57-27-2 CAPLUS
CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl-, (5α,6α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

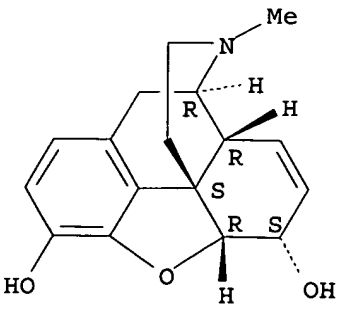


L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:127428 CAPLUS
DOCUMENT NUMBER: 94:127428
TITLE: Quantitative determination of opium alkaloids by liquid chromatographic methods
AUTHOR(S): Matantseva, E. F.; Gladyshev, P. P.; Goryaev, M. I.; Bektenova, G. A.
CORPORATE SOURCE: Inst. Khim. Nauk, Alma-Ata, USSR
SOURCE: Khimiya Prirodnykh Soedinenii (1980), (5), 730-1
CODEN: KPSUAR; ISSN: 0023-1150
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Ion-exchange and reverse-phase chromatog. is described for separating phenolic and nonphenolic alkaloids from Papaver somniferum capsules using P-cellulose, Bondapak CX/Corasil, and Bondapak C18/Corasil adsorbents. The eluents for the 3 adsorbents were 0.1N Na phosphate buffer (pH 7.5), 0.1N Ca phosphate buffer with 30% MeCN (pH 4.8), and 0.1N Ca phosphate buffer with 30% MeCN (pH 7.5). The wave length used for the monitoring these alkaloids was 254 nm. The alkaloids separated were morphine [57-27-2], codeine [76-57-3], narcotine [128-62-1], thebaine [115-37-7], papaverine [58-74-2], narcotoline [521-40-4], oxydimorphine [125-24-6], narceine [131-28-2], and laudanidine [301-21-3].

IT 57-27-2, analysis
RL: ANST (Analytical study)
(separation of, from opium alkaloids, by ion-exchange reverse-phase chromatog.)
RN 57-27-2 CAPLUS
CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl-(5α,6α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



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     (FILE 'HOME' ENTERED AT 10:14:59 ON 17 APR 2007)

     FILE 'REGISTRY' ENTERED AT 10:15:16 ON 17 APR 2007
L1            1 S MORPHINE/CN

     FILE 'CAPLUS' ENTERED AT 10:15:53 ON 17 APR 2007
L2        27446 S L1
L3      1096960 S SEPARATION OR PURIFICATION
L4          895 S L2 AND L3
L5         1693 S PREPARATIVE CHROMATOGRAPHY
L6            1 S L4 AND L5
L7         1537 S REVERSE PHASE CHROMATOGRAPHY
L8            2 S L4 AND L7

=> d ibib abs hitstr l6

L6   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2003:719484  CAPLUS
DOCUMENT NUMBER:          139:247494
TITLE:                    Method and system for separation and
                          purification of narcotic alkaloids using
                          reversed-phase preparative
                          chromatography
INVENTOR(S):              Antonini, Enrico A.
PATENT ASSIGNEE(S):       Mallinckrodt Inc., USA
SOURCE:                   PCT Int. Appl., 73 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
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     WO 2003074526         A2    20030912    WO 2003-US4498           20030218
     WO 2003074526         A3    20031204
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2477739            A1    20030912    CA 2003-2477739          20030218
     AU 2003216279         A1    20030916    AU 2003-216279           20030218
     EP 1487838            A2    20041222    EP 2003-743676           20030218
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     CN 1639166            A     20050713    CN 2003-804869           20030218
     JP 2005522460         T     20050728    JP 2003-572994           20030218
     US 2005182257         A1    20050818    US 2003-501353           20030218
PRIORITY APPLN. INFO.:                       US 2002-360321P      P   20020228
                                             US 2002-434597P      P   20021216
                                             WO 2003-US4498       W   20030218
AB   Narcotic alkaloids are separated by feeding a crude alkaloids solution into a
     chromatog. column containing a compressed reversed-phase stationary phase,
     applying an acidic solution (pH 2-5) to the chromatog. column to recover
     eluates containing morphine, codeine, oripavine, papaverine, thebaine, and
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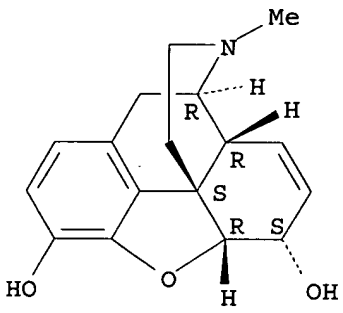
narcotine, resp. from the chromatog. column, adding a caustic solution to resp. eluate to precipitate and sep. the alkaloid. The mobile phase can be acetonitrile, water, ethanol, and iso-propanol. The stationary phase can consist of chemical modified silica, titania, zirconia, or a polymer. The acidic solution can contain acetic acid, formic acid, oxalic acid, succinic acid, lactic acid, and tartaric acid. A reagent can be added to the crude alkaloid solution, such as triethylamine, tetrabutylammonium hydrogen sulfate, sodium dodecyl sulfate, sodium heptane sulfonate, or ammonium sulfate. The caustic solution can contain NaOH, KOH, NH4OH, and carbonate salts of alkali metals. A system for separating at least one narcotic alkaloid consists of a chromatog. column having a fluid chamber and a media chamber, with a diameter of ≥ 5 cm having an inlet connected to a liquid tank via a 1st valve, an outlet connected to an eluate tank via a 2nd valve, and a fluid purge orifice connected to the outlet via a 3rd valve, a double-acting piston that includes a plate, having an upper face and a lower face, and a rod. The piston is located within the chromatog. column for compressing the stationary phase between the lower face of the plate and the bottom of the chromatog. column. A hydraulic pump provides fluid to the double-acting piston.

IT 57-27-2P, Morphine, preparation
RL: PUR (Purification or recovery); PREP (Preparation)
(separation and purification of narcotic alkaloids using reversed-phase preparative chromatog.)

RN 57-27-2 CAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl-(5α,6α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> d his

(FILE 'HOME' ENTERED AT 10:14:59 ON 17 APR 2007)

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L2 27446 S L1
L3 1096960 S SEPARATION OR PURIFICATION
L4 895 S L2 AND L3
L5 1693 S PREPARATIVE CHROMATOGRAPHY
L6 1 S L4 AND L5
L7 1537 S REVERSE PHASE CHROMATOGRAPHY
L8 2 S L4 AND L7

=> d l1
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 57-27-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl-
(5α,6α)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Morphinan-3,6α-diol, 7,8-didehydro-4,5α-epoxy-17-methyl- (8CI)
OTHER NAMES:
CN (-)-Morphine
CN Aguettant
CN DepoDur
CN Dulcontin
CN Duromorph
CN l-Morphine
CN M-Eslon
CN Meconium
CN Morphia
CN Morphin
CN Morphina
CN Morphine
CN Morphinism
CN Morphinum
CN Morphium
CN MS Contin
CN Nepenthe
CN Ospalivina
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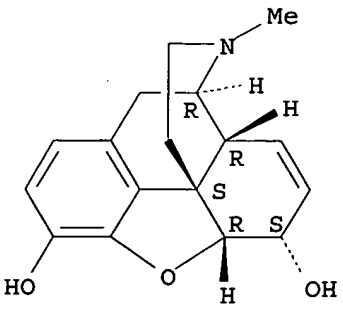
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

27416 REFERENCES IN FILE CA (1907 TO DATE)
315 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
27446 REFERENCES IN FILE CAPLUS (1907 TO DATE)